

**DRAFT EXPRESS TERMS**  
**WITH PURPOSE & RATIONALE**

**Initial Date: 02/01/06**

**Revised as of:**

00/00/06

The purpose of this Draft Express Terms with purpose and rationale is to place the 14 WorkGroup recommendations in numerical order and to show what has been submitted as suggested code amendments to the Office of the State Fire Marshal. It should be clearly noted that none of the changes have been accepted and/or rejected by the OSFM, but must be recognized as professional opinions of the various WorkGroups.

It should also be noted that this Draft is a “living document”, and will therefore be updated with regard to recommendations from the WorkGroups on a weekly basis (date of revisions will be noted above) until the Final Date scheduled for the Core Group to review any and all such recommended changes at it’s meeting on March 17, 2006.

**PROPOSED BUILDING STANDARDS  
OF THE OFFICE OF THE STATE FIRE MARSHAL**

**REGARDING PROPOSED CHANGES TO THE  
CALIFORNIA FIRE CODE**

**Chapter 1 – Administration**

IFC Chapter 1 Administration, Table 105.6.9

**PURPOSE OF CHANGE:**

Add a permit to Table 105.6.9 for Pyrophoric Compressed Gas as currently required by CFC Section 105 Table 105-A

**TABLE 105.6.9  
PERMIT AMOUNTS FOR COMPRESSED GASES**

TYPE OF GAS	AMOUNT (cubic feet at NTP)
Corrosive	200
Flammable (except cryogenic fluids and liquefied petroleum gases)	200
Highly toxic	Any Amount
Inert and simple asphyxiant	6,000
Oxidizing (including oxygen)	504
Pyrophoric	<u>Any Amount</u>
Toxic	Any Amount

**Purpose and Rationale Statement (Workgroup):**

South is in agreement as it appears to be an oversight.

**Action Taken (Core Group):**

[ ] Approved

- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**

IFC Chapter 1, Administration, Table 105.6.21

**PURPOSE OF CHANGE:**

Change the permit amount for Corrosive Solids in Table 105.6.21 from 1,000 pounds to that required by the current 2001 CFC Section 105 Table 105-C, 500 pounds.

**TABLE 105.6.21  
PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**

TYPE OF MATERIAL	AMOUNT
Combustible liquids	See Section 105.6.17
Corrosive materials	See Section 105.6.9 55 gallons <del>1000 pounds</del> <u>500 pounds</u>
Gases	
Liquids	
Solids	

**Purpose and Rationale Statement (Workgroup):**

South – Don't waste our time...

**Action Taken (Core Group):**

- ☐ **Approved**
- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 2 – Definitions

Chapter 3 – General Precautions Against Fire

Chapter 4 – Emergency Planning and Preparedness

Chapter 5 – Fire Service Feature

Chapter 6 – Building Services and Systems

Chapter 7 – Fire-Resistance-Rated Construction

Chapter 8 – Interior Finish, Decorative Materials and Furnishings

**Chapter 9 – Fire Protection Systems**

**901.4.1 Required fire protection systems.** Fire protection systems required by this code or the *International-California Building Code* shall be installed, repaired, operated, tested and maintained in accordance with this code.

**901.4.2 Nonrequired fire protection systems.** Any fire protection system or portion thereof not required by this code or the *International-California Building Code* shall be allowed to be furnished for partial or complete protection provided such installed system meets the requirements of this code and the *International-California Building Code*.

**901.6.1 Standards.** Fire protection systems shall be inspected, tested and maintained in accordance with the referenced standards listed in ~~Table 901.6.1.~~ Chapter 5, Title 19 CCR.

**903.2.4.2 Group H-5 occupancies.** An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall not be less than that required under the *International-California Building Code* for the occupancy hazard classifications in accordance with Table 903.2.4.2. Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

**903.2.8.1 Repair garages.** An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with the *International-California Building Code*, as follows:

1. Buildings two or more stories in height, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m<sup>2</sup>).
2. One-story buildings with a fire area containing a repair garage exceeding 12,000 square feet (1115 m<sup>2</sup>).
3. Buildings with a repair garage servicing vehicles parked in the basement.

**903.2.9 Group S-2.** An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.4 of the *International-California Building Code* or where located beneath other groups.

**Exception:** Enclosed parking garages located beneath Group R-3 occupancies.

**903.2.12.1 Ducts conveying hazardous exhausts.** Where required by the *International-California Mechanical Code*, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, flammable or combustible materials.

**Exception:** Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

**903.3.2 Quick-response and residential sprinklers.** Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing patient sleeping units in Group I-2 in accordance with the *International-California Building Code*.
2. Dwelling units and sleeping units in Group R and I-1 occupancies.
3. Light-hazard occupancies as defined in NFPA 13.

**903.3.5 Water supplies.** Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the *International-California Plumbing Code*.

**903.3.5.2 Secondary water supply.** A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category C, D, E or F as determined by the *International-California-Building Code*. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

**Exception:** Existing buildings.

**903.6 Existing buildings.** The provisions of this section are intended to provide a reasonable degree of safety in existing structures not complying with the minimum requirements of the *International-California Building Code* by requiring installation of an automatic fire-extinguishing system.

**904.3.1 Electrical wiring.** Electrical wiring shall be in accordance with this code or the *ICC-California Electrical Code*.

**904.5 Wet-chemical systems.** Wet-chemical extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 17A and their listing.

**904.6 Dry-chemical systems.** Dry-chemical extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 17 and their listing.

**904.7 Foam systems.** Foam-extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 11, NFPA 11A and NFPA 16 and their listing.

**904.7.1 System test.** Foam-extinguishing systems shall be inspected and tested at intervals in accordance with Chapter 5, Title 19 CCR NFPA 25.

**904.8 Carbon dioxide systems.** Carbon dioxide extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 12 and their listing.

**904.9 Halon systems.** Halogenated extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 12A and their listing.

**904.10 Clean-agent systems.** Clean-agent fire-extinguishing systems shall be installed,

maintained, periodically inspected and tested in accordance with Chapter 5, Title 19 CCR and NFPA 2001 and their listing.

**904.11 Commercial cooking systems.** ~~The automatic fire extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry and wet chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. Other types of automatic fire extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:~~

~~@Ind 1 ZL = 1.~~

~~@IND 2 = Carbon dioxide extinguishing systems, NFPA 12.~~

~~@Ind 1 ZL = 2.~~

~~@IND 2 = Automatic sprinkler systems, NFPA 13.~~

~~@Ind 1 ZL = 3.~~

~~@IND 2 = Foam water sprinkler system or foam water spray systems, NFPA 16.~~

~~@Ind 1 ZL = 4.~~

~~@IND 2 = Dry chemical extinguishing systems, NFPA 17.~~

~~@Ind 1 ZL = 5.~~

~~@IND 2 = Wet chemical extinguishing systems, NFPA 17A.~~

Protection of commercial type cooking equipment protected by a Type I Hood, shall be by means of an automatic fire extinguishing system that is listed and labeled for its intended use as follows:

- 1) Wet chemical extinguishing system, complying with UL 300. All existing dry chemical and wet chemical extinguishing systems shall comply with UL 300, no later than the second required servicing of the system following the effective date of this section or January 2008, which ever occurs first,
- 2) Carbon dioxide extinguishing systems,
- 3) Automatic fire sprinkler systems.

All systems shall be installed in accordance with the California Mechanical Code, appropriate adopted standards, their listing and the manufacturers' installation instructions.

**Exception:** Factory-built commercial cooking recirculating systems that are tested, listed, labeled and installed in accordance with UL 710B. ~~and listed, labeled and installed in accordance with Section 304.1 of the *International Mechanical Code*.~~

**904.11.5 Portable fire extinguishers for commercial cooking equipment.** Portable fire extinguishers shall be provided within a 30-foot (9144 mm) travel distance of commercial type cooking equipment. Cooking equipment involving vegetable or animal oils and fats shall be protected by a Class K-rated portable extinguisher and maintained in

accordance with Chapter 3, Title 19 CCR.

**904.11.5.2 Class K portable fire extinguishers for deep fat fryers.** When hazard areas include deep fat fryers, listed Class K portable fire extinguishers shall be provided in accordance with Chapter 3, Title 19 CCR and as follows:

1. For up to four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: One Class K portable fire extinguisher of a minimum 1.5 gallon ( 6 L) capacity.
2. For every additional group of four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: Additional Class K portable fire extinguishers of a minimum 1.5 gallon (6 L) capacity shall be provided.
3. For individual fryers exceeding 6 square feet (0.55 m<sup>2</sup>) in surface area: Class K portable fire extinguishers shall be installed in accordance with the extinguisher manufacturer's recommendations.

**904.11.6 Operations and maintenance.** Commercial cooking systems shall be operated and maintained in accordance with Chapter 5, Title 19 CCR and this section.

**906.1 Where required.** Portable fire extinguishers shall be installed in the following locations.

1. In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.  
**Exception:** ~~In new and existing Group A, B and E occupancies equipped throughout with quick-response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.~~
2. ~~Within 30 feet (9144 mm) of commercial cooking equipment.~~
32. In areas where flammable or combustible liquids are stored, used or dispensed.
43. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1.
54. Where required by the sections indicated in Table 906.1.
65. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.

**906.2 General requirements.** Portable fire extinguishers shall be selected, installed and maintained in accordance with Chapter 3, Title 19 CCR and this section ~~and NFPA-10.~~

**Exceptions:**

1. The travel distance to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. ~~Thirty-day inspections shall not be required and maintenance shall be allowed to be once every three years for dry-chemical or halogenated agent portable fire extinguishers that are supervised by a listed and approved electronic monitoring device, provided that all of the following are complied with:~~
  - 2.1. ~~Electronic monitoring shall confirm that extinguishers are properly positioned, properly charged and unobstructed.~~
  - 2.2. ~~Loss of power or circuit continuity to the electronic monitoring device shall initiate a trouble signal.~~
  - 2.3. ~~The extinguishers shall be installed inside of a building or cabinet in a noncorrosive environment.~~

2.4. Electronic monitoring devices and supervisory circuits shall be tested every three years when extinguisher maintenance is performed.

2.5. A written log of required hydrostatic test dates for extinguishers shall be maintained by the owner to ensure that hydrostatic tests are conducted at the frequency required by NFPA 10.

**906.3 Size and distribution.** For occupancies that involve primarily Class A fire hazards, the minimum sizes and distribution shall comply with Table 906.3(1). Fire extinguishers for occupancies involving flammable or combustible liquids with depths of less than or equal to 0.25-inch (6.35 mm) shall be selected and placed in accordance with Table 906.3(2). Fire extinguishers for occupancies involving flammable or combustible liquids with a depth of greater than 0.25-inch (6.35 mm) or involving combustible metals shall be selected and placed in accordance with NFPA 10. Extinguishers for Class C fire hazards shall be selected and placed on the basis of the anticipated Class A or Class B hazard.

**906.4 Cooking grease fires.** Fire extinguishers provided for the protection of cooking grease fires shall be of an approved type compatible with the automatic fire extinguishing system agent and in accordance with Section 904.11.5.

**906.5 Conspicuous location.** Portable fire extinguishers shall be located in conspicuous locations where they will be readily accessible and immediately available for use. These locations shall be along normal paths of travel, unless the fire code official determines that the hazard posed indicates the need for placement away from normal paths of travel.

**906.6 Unobstructed and unobscured.** Portable fire extinguishers shall not be obstructed or obscured from view. In rooms or areas in which visual obstruction cannot be completely avoided, means shall be provided to indicate the locations of extinguishers.

**906.7 Hangers and brackets.** Hand held portable fire extinguishers, not housed in cabinets, shall be installed on the hangers or brackets supplied. Hangers or brackets shall be securely anchored to the mounting surface in accordance with the manufacturer's installation instructions.

**906.83 Cabinets.** Cabinets used to house portable fire extinguishers shall not be locked.  
**Exceptions:**

1. Where portable fire extinguishers subject to malicious use or damage are provided with a means of ready access.
2. In Group I-3 occupancies and in mental health areas in Group I-2 occupancies, access to portable fire extinguishers shall be permitted to be locked or to be located in staff locations provided the staff has keys.

**906.9 Height above floor.** Portable fire extinguishers having a gross weight not exceeding 40 pounds (18 kg) shall be installed so that its top is not more than 5 feet (1524 mm) above the floor. Hand held portable fire extinguishers having a gross weight exceeding 40 pounds (18 kg) shall be installed so that its top is not more than 3.5 feet

(1067 mm) above the floor. The clearance between the floor and the bottom of installed hand held extinguishers shall not be less than 4 inches (102 mm).

**906.10 Wheeled units.** Wheeled fire extinguishers shall be conspicuously located in a designated location.

**907.2.6.2 Group I-2.** Corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by Section 407.2 of the *International-California Building Code* shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2 of the *International-California Building Code*.

**Exceptions:**

1. Corridor smoke detection is not required in smoke compartments that contain patient sleeping units where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and shall provide an audible and visual alarm at the nursing station attending each unit.
2. Corridor smoke detection is not required in smoke compartments that contain patient sleeping units where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

**907.2.7 Group M.** A manual fire alarm system shall be installed in Group M occupancies having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge. The initiation of a signal from a manual fire alarm box shall initiate alarm notification appliances as required by Section 907.10.

**Exceptions:**

1. Covered mall buildings complying with Section 402 of the *International-California Building Code*.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system and the alarm notification appliances will automatically activate upon sprinkler water flow.

**907.2.12 High-rise buildings.** Buildings with a floor used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.2.12.2.

**Exceptions:**

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the *International-California Building Code*.
2. Open parking garages in accordance with Section 406.3 of the *International-California Building Code*.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International-California Building Code*.
4. Low-hazard special occupancies in accordance with Section 503.1.1 of the



~~International-California Building Code.~~

5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the ~~International-California Building Code.~~

**907.2.18 Underground buildings with smoke exhaust systems.** Where a smoke exhaust system is installed in an underground building in accordance with the ~~International-California Building Code~~, automatic fire detectors shall be provided in accordance with this section.

**907.2.21 Residential aircraft hangars.** A minimum of one listed smoke alarm shall be installed within a residential aircraft hangar as defined in the ~~International-California Building Code~~ and shall be interconnected into the residential smoke alarm or other sounding device to provide an alarm which will be audible in all sleeping areas of the dwelling.

**907.6 Wiring.** Wiring shall comply with the requirements of this code or the ICC ~~California Electrical Code~~ and NFPA 72. Wireless protection systems utilizing radio-frequency transmitting devices shall comply with the special requirements for supervision of low-power wireless systems in NFPA 72.

**907.15 Monitoring.** Fire alarm systems required by this chapter or by the ~~International-California Building Code~~ shall be monitored by an approved supervising station in accordance with NFPA 72.

**Exception:** Supervisory service is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.10.
2. Smoke detectors in Group I-3 occupancies.
3. Automatic sprinkler systems in one- and two-family dwellings.

**909.1 Scope and purpose.** This section applies to mechanical or passive smoke control systems when they are required for new buildings or portions thereof by provisions of the ~~International-California Building Code~~ or this code. The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, the timely restoration of operations, or for assistance in fire suppression or overhaul activities. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the ~~International-California Mechanical Code~~.

**909.2 General design requirements.** Buildings, structures, or parts thereof required by the ~~International-California Building Code~~ or this code to have a smoke control system or systems shall have such systems designed in accordance with the applicable requirements of Section 909 and the generally accepted and well-established principles of engineering relevant to the design. The construction documents shall include sufficient information and detail to describe adequately the elements of the design necessary for the

proper implementation of the smoke control systems. These documents shall be accompanied with sufficient information and analysis to demonstrate compliance with these provisions.

**909.3 Special inspection and test requirements.** In addition to the ordinary inspection and test requirements to which buildings, structures and parts thereof are required to undergo, smoke control systems subject to the provisions of Section 909 shall undergo special inspections and tests sufficient to verify the proper commissioning of the smoke control design in its final installed condition. The design submission accompanying the construction documents shall clearly detail procedures and methods to be used and the items subject to such inspections and tests. Such commissioning shall be in accordance with generally accepted engineering practice and, where possible, based on published standards for the particular testing involved. The special inspections and tests required by this section shall be conducted under the same terms as in Section 1704 of the *International California Building Code*.

**909.4.3 Wind effect.** The design shall consider the adverse effects of wind. Such consideration shall be consistent with the wind-loading provisions of the *International California Building Code*.

**909.5 Smoke barrier construction.** Smoke barriers shall comply with the *International California Building Code*. Smoke barriers shall be constructed and sealed to limit leakage areas exclusive of protected openings. The maximum allowable leakage area shall be the aggregate area calculated using the following leakage area ratios:

**909.5.2 Opening protection.** Openings in smoke barriers shall be protected by automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by fire door assemblies complying with Section 715.4.3 of the *International California Building Code*.

**Exceptions:**

1. Passive smoke control systems with automatic-closing devices actuated by spot-type smoke detectors listed for releasing service installed in accordance with Section 907.10.
2. Fixed openings between smoke zones that are protected utilizing the airflow method.
3. In Group I-2, where such doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested. The doors shall be close-fitting within operational tolerances and shall not have undercuts, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic-closing by smoke detection in accordance with Section 715.4.7.3 of the *International California Building Code*. Positive-latching devices are not required.
4. Group I-3.
5. Openings between smoke zones with clear ceiling heights of 14 feet (4267 mm) or greater and bank-down capacity of greater than 20 minutes as determined by the design fire size.

**909.5.2.1 Ducts and air transfer openings.** Ducts and air transfer openings are required to be protected with a minimum Class II, 250°F (121°C) smoke damper complying with Section 716 of the *International-California Building Code*.

**909.10.2 Ducts.** Duct materials and joints shall be capable of withstanding the probable temperatures and pressures to which they are exposed as determined in accordance with Section 909.10.1. Ducts shall be constructed and supported in accordance with the *International-California Mechanical Code*. Ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the documentation procedure. Ducts shall be supported directly from fire-resistance-rated structural elements of the building by substantial, noncombustible supports.

**Exception:** Flexible connections (for the purpose of vibration isolation) complying with the *International-California Mechanical Code* and which are constructed of approved fire-resistance-rated materials.

**909.10.5 Fans.** In addition to other requirements, belt-driven fans shall have 1.5 times the number of belts required for the design duty with the minimum number of belts being two. Fans shall be selected for stable performance based on normal temperature and, where applicable, elevated temperature. Calculations and manufacturer's fan curves shall be part of the documentation procedures. Fans shall be supported and restrained by noncombustible devices in accordance with the structural design requirements of Chapter 16 of the *International-California Building Code*. Motors driving fans shall not be operated beyond their nameplate horsepower (kilowatts) as determined from measurement of actual current draw and shall have a minimum service factor of 1.15.

**909.11 Power systems.** The smoke control system shall be supplied with two sources of power. Primary power shall be from the normal building power system. Secondary power shall be from an approved standby source complying with this code or the ~~ICC~~-*California Electrical Code*. The standby power source and its transfer switches shall be in a separate room from the normal power transformers and switch gear and shall be enclosed in a room constructed of not less than 1-hour fire barriers ventilated directly to and from the exterior. Power distribution from the two sources shall be by independent routes. Transfer to full standby power shall be automatic and within 60 seconds of failure of the primary power. The systems shall comply with this code or the ~~ICC~~-*California Electrical Code*.

**909.12.1 Wiring.** In addition to meeting requirements of this code or the ~~ICC~~-*California Electrical Code*, all wiring, regardless of voltage, shall be fully enclosed within continuous raceways.

**909.16.3 Control action and priorities.** The fire-fighter's control panel actions shall be as follows:

1. ON-OFF and OPEN-CLOSE control actions shall have the highest priority of any control point within the building. Once issued from the fire-fighter's control panel, no automatic or manual control from any other control point within the building shall contradict the control action. Where automatic means are provided to interrupt normal,

nonemergency equipment operation or produce a specific result to safeguard the building or equipment (i.e., duct freeze stats, duct smoke detectors, high-temperature cutouts, temperature-actuated linkage and similar devices), such means shall be capable of being overridden by the fire-fighter's control panel. The last control action as indicated by each fire-fighter's control panel switch position shall prevail. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.

**Exception:** Power disconnects required by this code or the ~~ICC~~ *California Electrical Code*.

2. Only the AUTO position of each three-position fire-fighter's control panel switch shall allow automatic or manual control action from other control points within the building. The AUTO position shall be the NORMAL, nonemergency, building control position. Where a fire-fighter's control panel is in the AUTO position, the actual status of the device (on, off, open, closed) shall continue to be indicated by the status indicator described above. When directed by an automatic signal to assume an emergency condition, the NORMAL position shall become the emergency condition for that device or group of devices within the zone. In no case shall control actions require the smoke control system to assume more than one configuration at any one time.

**911.2 Required deflagration venting.** Areas that are required to be provided with deflagration venting shall comply with the following:

1. Walls, ceilings and roofs exposing surrounding areas shall be designed to resist a minimum internal pressure of 100 pounds per square foot (psf) (4788 Pa). The minimum internal design pressure shall not be less than five times the maximum internal relief pressure specified in Section 911.2, Item 5.

2. Deflagration venting shall be provided only in exterior walls and roofs.

**Exception:** Where sufficient exterior wall and roof venting cannot be provided because of inadequate exterior wall or roof area, deflagration venting shall be allowed by specially designed shafts vented to the exterior of the building.

3. Deflagration venting shall be designed to prevent unacceptable structural damage. Where relieving a deflagration, vent closures shall not produce projectiles of sufficient velocity and mass to cause life threatening injuries to the occupants or other persons on the property or adjacent public ways.

4. The aggregate clear area of vents and venting devices shall be governed by the pressure resistance of the construction assemblies specified in Item 1 of this section and the maximum internal pressure allowed by Item 5 of this section.

5. Vents shall be designed to withstand loads in accordance with the *International California Building Code*. Vents shall consist of any one or any combination of the following to relieve at a maximum internal pressure of 20 pounds per square foot (958 Pa), but not less than the loads required by the *International-California Building Code*:

5.1. Exterior walls designed to release outward.

5.2. Hatch covers.

5.3. Outward swinging doors.

5.4. Roofs designed to uplift.

5.5. Venting devices listed for the purpose.

6. Vents designed to release from the exterior walls or roofs of the building when venting a deflagration shall discharge directly to the exterior of the building where an unoccupied

space not less than 50 feet (15 240 mm) in width is provided between the exterior walls of the building and the property line.

**Exception:** Vents complying with Item 7 of this section.

7. Vents designed to remain attached to the building when venting a deflagration shall be so located that the discharge opening shall not be less than 10 feet (3048 mm) vertically from window openings and exits in the building and 20 feet (6096 mm) horizontally from exits in the building, from window openings and exits in adjacent buildings on the same property, and from the property line.

8. Discharge from vents shall not be into the interior of the building.

**912.5 Backflow protection.** The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow as required by the *International California Plumbing Code*.

**912.6 Inspection, testing and maintenance.** All fire department connections shall be periodically inspected, tested and maintained in accordance with Chapter 5, Title 19 CCR NFPA 25.

**913.5 Testing and maintenance.** Fire pumps shall be inspected, tested and maintained in accordance with the requirements of this section and Chapter 5, Title 19 CCR NFPA 25.

**914.1 General.** This section shall specify where fire protection systems are required based on the detailed requirements of use and occupancy of the *International California Building Code*.

**914.2.1 Automatic sprinkler system.** The covered mall building and buildings connected shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.1.1, which shall comply with the following:

1. The automatic sprinkler system shall be complete and operative throughout occupied space in the covered mall building prior to occupancy of any of the tenant spaces. Unoccupied tenant spaces shall be similarly protected unless provided with approved alternate protection.

2. Sprinkler protection for the mall shall be independent from that provided for tenant spaces or anchors. Where tenant spaces are supplied by the same system, they shall be independently controlled.

**Exception:** An automatic sprinkler system shall not be required in space or areas of open parking garages constructed in accordance with Section 406.2 of the *International California Building Code*.

**914.3.1 Automatic sprinkler system.** Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2.

**Exception:** An automatic sprinkler system shall not be required in spaces or areas of:

1. Open parking garages in accordance with Section 406.3 of the *International California Building Code*.

2. Telecommunication equipment buildings used exclusively for telecommunications

equipment, associated electrical power distribution equipment, batteries and standby engines, provided that those spaces or areas are equipped throughout with an automatic fire detection system in accordance with Section 907.2 and are separated from the remainder of the building with fire barriers consisting of not less than 1-hour fire-resistance-rated walls and 2-hour fire-resistance-rated floor/ceiling assemblies.

**914.5.3 Compartment smoke control system.** Where compartmentation is required by Section 405.4 of the *International-California Building Code*, each compartment shall have an independent smoke-control system. The system shall be automatically activated and capable of manual operation in accordance with Section 907.2.18.

**914.10 Drying rooms.** Drying rooms designed for high-hazard materials and processes, including special occupancies as provided for in Chapter 4 of the *International-California Building Code*, shall be protected by an approved automatic fire-extinguishing system complying with the provisions of Chapter 9.

**Purpose and Rationale Statement (Workgroup):**

Throughout document “International” is changed to California

**Sections 901.6.1, 904.5, 904.6, 904.7, 904.7.1, 904.8, 904.9 904.10 904.11.6, 912.6 and 913.5**

California Health and Safety Code (H & S)

**H & S 13195.** The State Fire Marshal shall adopt and administer the regulations and building standards he or she deems necessary in order to (1) establish and control a program for servicing, testing, and maintaining all automatic fire extinguishing systems, including but not limited to, fire sprinkler systems, engineered and pre-engineered fixed extinguishing systems, standpipe systems, and water flow alarm devices and (2) establish minimum frequencies of service, inspection, and testing for the various types of automatic fire extinguishing systems. All tests of automatic sprinkler systems shall include a test of all supervisory signaling equipment that is provided to determine whether a condition exists that will impair the satisfactory operation of the system. The regulations and building standards established by the State Fire Marshal for servicing, testing, and maintaining automatic fire extinguishing systems shall consider the requirements of the applicable standards of the National Fire Protection Association and the voluntary standards published by the State Fire Marshal entitled the "California Voluntary Standards for Residential Sprinkler Systems," dated January 1982.

**H & S 13195.5. Service, Testing, and Maintenance.**

Every automatic fire extinguishing system, including, but not limited to, fire sprinkler systems, engineered and pre-engineered fixed extinguishing systems, standpipe systems, and alarm and supervisory equipment attached to those systems shall be serviced, tested,

and maintained in accordance with the regulations and building standards adopted by the State Fire Marshal pursuant to Section 13195.

### **Section 904.11**

Changes in the cooking medium and appliance efficiency in modern restaurants have significantly altered the fire hazard in cooking areas. This necessitated a change in the UL testing standards for fixed extinguishing systems in 1994. Although it has been almost 10 years since the issuance of the new standard many existing locations are still protected by non-compliant systems even though they are using the newer cooking mediums and high efficiency appliances. This represents a risk of loss of property and personal injury as these non-compliant systems have been shown to lack effectiveness in extinguishing fires under modern conditions. Current code and manufacturer's requirements call for a semi-annual service/maintenance of all restaurant fire suppression systems. The State Fire Marshal has determined that it is not in the public interest to continue to service and certify fire suppression systems that do not meet the requirements of UL 300.

The State Fire Marshal has determined that this regulatory action will produce a significant public and private benefit by reducing the risk of property loss and/or personal injury to the owners of the commercial cooking equipment, the public, and surrounding businesses. It should also reduce the cost of fighting fires at restaurants that are properly protected.

**Sections 904.11.5, 904.11.5.2, 906.1, 906.2, 906.3, 906.4, 906.5, 906.6, 906.7, 906.8, 906.9 and 906.10,**

**H & S Code 13160.** Regulations and standards; administration. With the advice of the State Fire Advisory Board, the State Fire Marshal shall adopt, in accordance with the provisions of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and administer regulations and standards as he or she may deem necessary for the protection and preservation of life and property to control the servicing, including charging, and testing, of all portable fire extinguishers for controlling and extinguishing fires, and for controlling the sale and marketing of all such devices with respect to conformance with standards of their use, capacity, and effectiveness. In adopting the regulations, the State Fire Marshal shall consider the standards of the National Fire Protection Association.

**13161. Legislative intention.** It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to this chapter shall apply uniformly throughout the State of California and no county, city, city or county or district shall adopt or enforce any ordinance or rule or regulation regarding portable fire extinguishers which is inconsistent with the provisions of this chapter or the regulations and standards adopted by the State Fire Marshal pursuant to this chapter.

IFC SectionTitle 19 Section

904.11.5	573
906.1 Exception	Not consistent with existing requirements of Title 19
906.1 (2)	573 (b)
906.2	Health and Safety Code Section 13160
906.2 Exception 2-2.5	Not consistent with existing requirements of Title 19
906.3	565 and 567- 573
906.4	573
906.5	567 (j)
906.6	567 (i)
906.7	567.3/4
906.8 exception 1	567.2
906.9	567.6
906.10	567.3

**Action Taken (Core Group):**☐ **Approved**☐ **Returned for further Study/Clarification/Justification**☐ **Recommended for Next Code Adoption Cycle**☐ **Disapproved**☒ **Core Group Did Not Review (as of 01/09-11/06)****Chapter 10 – Means of Egress****PURPOSE OF CHANGE:**

Increases Table 1005.1 of the IFC and IBC Table 1005.1 [Egress Width Per Occupant Served] to the width per occupant served, to remain consistent with Group H Occupancies and maintain the current standard of care of the 2001 CBC.

**TABLE 1005.1**  
**EGRESS WIDTH PER OCCUPANT SERVED OCCUPANCY WITHOUT SPRINKLER**  
**SYSTEM WITH SPRINKLER SYSTEM <sup>a</sup>**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM		WITH SPRINKLER SYSTEM <sup>a</sup>	
	Stairways (inches per occupant)	Other egress components (inches per occupant)	Stairways (inches per occupant)	Other egress components (inches per occupant)
Occupancies other than those listed below	0.3	0.2	0.2	0.15
Hazardous: H-1, H-2, H-3 and H-4	<del>0.7</del> Not Applicable	<del>0.4</del> Not Applicable	<del>0.3</del> 0.7	<del>0.2</del> 0.4
Institutional: I-2	Not Applicable	Not Applicable	0.3	0.2

For SI: 1 inch = 25.4 mm.

a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

South Comments:



Why do you need a wider exit width in an H? What happens with a toxic gas? What if it is the exit width out of a gas room? After much discussion South disagrees. Go with what is in the IBC. NOTE: If this would come into affect due to area or occupant load, travel distance would be more critical and two exits would already be required.

## IFC and IBC Chapter 10 Means of Egress, Table 1015.1

### PURPOSE OF CHANGE:

Reduce the IFC and IBC Table 1015.1 [Exit Access Travel Distances] for H occupancies to maintain the current standard of care of the 2001 CBC Article 1007.4.2.1. The exit access travel distance stated in Table 1015.1 of the IBC and IFC is much greater than allowed by current code. In order to maintain the current standard of care we recommend the travel distances be reduced to current code distances.

**TABLE 1015.1**  
**EXIT ACCESS TRAVEL DISTANCE <sup>a</sup>**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, I-1, M, R, S-1	200	250 b
B	200	300 c
F-2, S-2, U	300	400 b
H-1	Not Permitted	75 c
H-2	Not Permitted	<del>400</del> <u>75</u> c
H-3	Not Permitted	<del>450</del> <u>75</u> c
H-4	Not Permitted	<del>475</del> <u>100</u> c
H-5	Not Permitted	<del>200</del> <u>100</u> c
I-2, I-3, I-4	150	200 c

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:

Section 402 of the *International Building Code*: For the distance limitation in malls.

Section 404 of the *International Building Code*: For the distance limitation through an atrium space.

Section 1015.2 : For increased limitation in Groups F-1 and S-1.

Section 1024.7 : For increased limitation in assembly seating.

Section 1024.7 : For increased limitation for assembly open-air seating.

Section 1018.2 : For buildings with one exit.

Chapter 31 of the *International Building Code*: For the limitation in temporary structures.

b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 . See Section 903 for occupancies where sprinkler systems according to Section 903.3.1.2 are permitted.

c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 .

### Purpose and Rationale Statement (Workgroup):

#### South Comments:

This may be a comparison between items from the Uniform to the International where we are not comparing the same information. South is in disagreement. Note: the overall travel distance is less in the International, **therefore accept as is.**

**Action Taken (Core Group):**

- ☐ **Approved**
- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 11 – Aviation Facilities

Chapter 12 – Dry Cleaning

Chapter 13 – Combustible Dust-Producing Operations

Chapter 14 – Fire Safety During Construction and Demolition

Chapter 15 – Flammable Finishes

Chapter 16 – Fruit and Crop Ripening

Chapter 17 – Fumigation and Thermal Insecticidal Fogging

Chapter 18 – Semiconductor Fabrication Facilities

Chapter 19 – Lumber Yards and Woodworking Facilities

Chapter 20 – Manufacture of Organic Coatings

**Chapter 21 – Industrial Ovens**

**2106.3 Fire extinguishers.** Portable fire extinguishers complying with Section 906 shall be provided not closer than 15 feet (4572 mm) or a maximum of 50 feet (15 240 mm) ~~or in accordance with NFPA 10.~~ This shall apply to the oven and related equipment.

**Purpose and Rationale Statement (Workgroup):**

**H & S Code 13160. Regulations and standards; administration.** With the advice of the State Fire Advisory Board, the State Fire Marshal shall adopt, in accordance with the provisions of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and administer regulations and standards as he or she may deem necessary for the protection and preservation of life and property to control the servicing, including charging, and testing, of all portable fire extinguishers for controlling and extinguishing fires, and for controlling the sale and marketing of all such devices with respect to conformance with standards of their use, capacity, and effectiveness. In adopting the regulations, the State Fire Marshal shall consider the standards of the National Fire Protection Association.

**13161. Legislative intention.** It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to this chapter shall apply uniformly throughout the State of California and no county, city, city or county or district shall adopt or enforce any ordinance or rule or regulation regarding portable fire extinguishers which is inconsistent with the provisions of this chapter or the regulations and standards adopted by the State Fire Marshal pursuant to this chapter.

IFC Section

Title 19 Section

2106.3

NFPA 10 contains no specific requirements and is not adopted in California

**Action Taken (Core Group):**

☐ **Approved**

☐ **Returned for further Study/Clarification/Justification**

☐ **Recommended for Next Code Adoption Cycle**

☐ **Disapproved**

☒ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 22 – Motor Fuel-Dispensing Facilities and Repair Garages

Chapter 23 – High-Pile Combustible Storage

Chapter 24 – Tents, Canopies and Other Membrane Structures

Chapter 25 – Tire Rebuilding and Tire Storage

Chapter 26 – Welding and Other Hot Work

**Chapter 27 – Hazardous Materials – General Provisions**

**PURPOSE OF CHANGE:**

Section 2701.5.1 of the 2006 IFC provides the general guidelines for the submittal of a Hazardous Materials Management Plan (HMMP). The Office of the State Fire Marshal is proposing to add the requirement that the HMMP shall also comply with the provisions of the Health and Safety Code and Title 19 to ensure that the HMMP provides the necessary information to comply with the minimum statewide standards for the plan.

**2701.5.1 Hazardous Materials Management Plan.** Where required by the fire code official, each application for a permit shall include a Hazardous Materials Management Plan (HMMP). The HMMP shall include a facility site plan designating the following:

1. Storage and use areas.

2. Maximum amount of each material stored or used in each area.
3. Range of container sizes.
4. Locations of emergency isolation and mitigation valves and devices.
5. Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low- pressure fuel gas lines.
6. On and off positions of valves for valves that are of the self –indicating type.
7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles.
8. The location and type of emergency equipment. The plans shall be legible and drawn approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

{For SFM} The HMMP shall comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 3.

**Purpose and Rationale Statement (Workgroup):**

South AGREES. This is the same comment turned in for Core Team review.

**Action Taken (Core Group):**

☐ **Approved**

☐ **Returned for further Study/Clarification/Justification**

☐ **Recommended for Next Code Adoption Cycle**

☐ **Disapproved**

☐ **Core Group Did Not Review (as of 01/09-11/06)**

**PURPOSE OF CHANGE:**

Section 2701.5.2 of the 2006 IFC provides the general guidelines for the submittal of a Hazardous Materials Inventory Statement (HMIS). The Office of the State Fire Marshal is proposing to add the requirement that the HMIS shall also comply with the provisions of the Health and Safety Code and Title 19 to ensure that the HMIS provides the necessary information to comply with the minimum statewide standards for the inventory statement.

**2701.5.2 Hazardous Materials Inventory Statement (HMIS).** Where required by the fire code official, an applicant for a permit shall include an HMIS, such as SARA (Superfund Amendments and Reauthorization Act of 1986), Title III, Tier II Report, or other approved statement. The HMIS shall include the following information:

1. Manufacturer's name.
2. Chemical name, trade names, hazardous ingredients.
3. Hazard classification.
4. MSDS or equivalent.
5. United Nations (UN), North America (NA), or the Chemical Abstract Service (CAS) identification number.
6. Maximum quantity stored or used on-site at one time.

7. Storage conditions related to the storage type, temperature and pressure.

{For SFM} The HMIS shall comply with the Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 3.

**Purpose and Rationale Statement (Workgroup):**

South AGREES. This is the same comment turned in for Core Team review.

**Action Taken (Core Group):**

- ☐ Approved
- ☐ Returned for further Study/Clarification/Justification
- ☐ Recommended for Next Code Adoption Cycle
- ☐ Disapproved
- ☐ Core Group Did Not Review (as of 01/09-11/06)

Section 2704.3.1

**PURPOSE OF CHANGE:**

Section 2704.3.1 of the 2006 IFC provides the general requirements for exhaust ventilation systems. The Office of the State Fire Marshal is proposing to add an “Exception” to delete the requirement for a manual exhaust ventilation shutoff switch when all of the hazardous dusts, mists, fumes, vapors, and gases are completely exhausted outside of the building. To provide a manual shutoff switch in this instance would increase the likelihood of hazardous components migrating throughout the interior of the building and exposing its’ occupants.

**2704.3.1 System Requirements.** Exhaust ventilation systems shall comply with all of the following:

1. Installation shall be in accordance with the *International Mechanical Code*.
2. Mechanical ventilation shall be at a rate of not less than 1 cubic foot per minute per square foot [0.00508 m<sup>3</sup>/(sm<sup>2</sup>)] of floor area over the storage area.
3. Systems shall operate continuously unless alternative designs are approved.
4. A manual shutoff control shall be provided outside of the room in a position adjacent to the access door to the room or in an approved location. The switch shall be of the break –glass or other approved type and shall be labeled “VENTILATION SYSTEM EMERGENCY SHUTOFF”.

**EXCEPTION:** {For SFM} When exhaust systems containing explosive, corrosive, combustible, flammable or highly toxic dusts, mists, fumes, vapors, or gases are 100 percent exhausted to the outside, an emergency ventilation system shutoff is not required.

5. Exhaust ventilation shall be designed to consider the density of the potential fumes or vapors released. For fumes or vapors that are heavier than air,

exhaust shall be taken from a point within 12 inches (305 mm) of the floor. For fumes or vapors that are lighter than air, exhaust shall be taken from a point within 12 inches (305 mm) of the highest point of the room.

6. The location of both the exhaust and inlet air openings shall be designed to provide air movement across all portions of the floor or room to prevent the accumulation of vapors.
7. Exhaust air shall not be recirculated to occupied areas if the materials stored are capable of emitting hazardous vapors and contaminants have not been removed. Air-contaminated with explosive or flammable vapors, fumes, or dusts; flammable, highly toxic or toxic gases; or radioactive materials shall not be recirculated.

**Purpose and Rationale Statement (Workgroup):**

SOUTH – cannot support at this time. This would limit the first responder’s option to control an emergency situation. Just because the provision exists in the CFC currently, doesn’t mean it was justified.

**Action Taken (Core Group):**

- ☐ **Approved**
- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 28 – Aerosols

Chapter 29 – Combustible Fibers

Chapter 30 – Compressed Gases

**Chapter 31 – Corrosive Materials**

Section 3104.2.1

**PURPOSE OF CHANGE:**

The change would maintain the current requirement for secondary containment found in the 2001 California Fire Code under Sections 8003.1.3.3 and Table 8003.1-A.

**3104.2.1 Above-ground outside storage tanks.**

When required by Section 2704.2.2 above-ground outside storage tanks ~~exceeding an aggregate quantity of 1,000 gallons (3785 L)~~ of corrosive liquids shall be provided with secondary containment ~~in accordance with Section~~ 2704.2.2

**Purpose and Rationale Statement (Workgroup):**

South does not support. This is already addressed...what is the definition of a tank is more an issue. Containment is an issue already due to Water Quality and other

Environmental issues. This eliminates the requirement to provide containment for example: 3,000 55-gallon drums outside.

**Action Taken (Core Group):**

☐ **Approved**

☐ **Returned for further Study/Clarification/Justification**

☐ **Recommended for Next Code Adoption Cycle**

☐ **Disapproved**

☐ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 32 – Cryogenic Fluids

Chapter 33 – Explosives and Fireworks

Chapter 34 – Flammable and Combustible Liquids

Chapter 35 – Flammable Gases

Chapter 36 – Flammable Solids

**Chapter 37 – Highly Toxic and Toxic Materials**

Section 3704.2.2.7

**PURPOSE OF CHANGE:**

We propose that the California State Fire Marshal in the adoption of the 2006 CFC delete Exception 2 of IFC 3704.2.2.7 Treatment Systems.

It is our feeling that although Exception 1 utilizes new and available technologies, Exception substantially reduces Community and Emergency Responder Safety. Elimination of abatement or containment systems for Toxic Gases reduces the current standard of care and exposes the local community to extraordinary Health Hazards. Although the utilization of a modern shut off valve is a positive step. There are toxic leak paths that exist around the valve and through other appurtenances.

**3704.2.2.7 Treatment systems.**

The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 3704.2.2.4 and 3704.2.2.5 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 3704.2.2.7.1 through 3704.2.2.7.5 and Section 510 of the *International Mechanical Code*.

**Exceptions:**

1. Highly toxic and toxic gases—storage. A treatment system is not required for cylinders, containers and tanks in storage when all of the following controls are provided:
  - 1.1. Valve outlets are equipped with gas-tight outlet plugs or caps.



1.2. Handwheel-operated valves have handles secured to prevent movement.  
1.3. Approved containment vessels or containment systems are provided in accordance with Section 3704.2.2.3 .

~~2. Toxic gases—use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 660 gallons (2 498 L) liquid capacity when the following are provided:~~

~~2.1. A gas detection system with a sensing interval not exceeding 5 minutes.~~

~~2.2. An approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection shall comply with Section 3704.2.2.10 .~~

**Purpose and Rationale Statement (Workgroup):**

AM&M's have been accepted in the past for this type of system. This gives specific criteria for utilizing this type of criteria. The current allowance would ONLY be applicable to toxic and not highly toxic gases. South is not in support of this change.

**Action Taken (Core Group):**

☐ **Approved**

☐ **Returned for further Study/Clarification/Justification**

☐ **Recommended for Next Code Adoption Cycle**

☐ **Disapproved**

☐ **Core Group Did Not Review (as of 01/09-11/06)**

Section 3705.1, Delete exception #2

**PURPOSE OF CHANGE:**

We propose to delete Section 3705.1, exception #2 that exempts Group H-5 Occupancies from the safeguards required by this Section for Ozone Gas Generating equipment. Since the semiconductor industry uses Ozone Gas generators, which is a Fire Code defined Highly Toxic Gas, they should be included in the safeguards provided by this Section of the Code. It simply retains the Standard of Care found in the 2001 California Fire Code in Appendix II-I.

**3705.1 Scope.**

Ozone gas generators having a maximum ozone-generating capacity of 0.5 pound (0.23 kg) or more over a 24-hour period shall be in accordance with this section.

**Exception:** Ozone-generating equipment used in Group R-3 occupancies.

~~Ozone-generating equipment used in Group H-5 occupancies.~~

**Purpose and Rationale Statement (Workgroup):**

South is in support of the North!! The specific requirements for ozone will require additional safeguards that would not otherwise be in an H5.

**Action Taken (Core Group):**



- ☐ **Approved**
- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**

Chapter 38 – Liquefied Petroleum Gases

Chapter 39 – Organic Peroxides

Chapter 40 – Oxidizers

Chapter 41 – Pyrophoric Materials

Chapter 42 – Pyroxylin (Cellulose Nitrate) Plastic

Chapter 43 – Unstable (Reactive) Materials

Chapter 44 – Water-Reactive Solids and Liquids

Chapter 45 – Reference Standards

**Purpose and Rationale Statement (Workgroup):**

**Action Taken (Core Group):**

- ☐ **Approved**
- ☐ **Returned for further Study/Clarification/Justification**
- ☐ **Recommended for Next Code Adoption Cycle**
- ☐ **Disapproved**
- ☐ **Core Group Did Not Review (as of 01/09-11/06)**